

THREE FORKS SPRINGSNAIL
(*Pyrgulopsis trivialis*)

STATUS: Candidate

SPECIES DESCRIPTION: Member of the family Hydrobiidae (phylum Mollusca; class Gastropoda; subclass Prosobranchis). Shell ovate- to narrowly-conic; height, 1.5 to 4.5 mm (.05-.18 in); whorls, 3.4 - 5.0. The Three Forks springsnail is strictly aquatic and respiration occurs through an internal gill known as a ctenidium. The primary food source for springsnails is believed to be periphytic diatoms which are scraped from hard surfaces with the radula.

HABITAT: Rheocrene springs (emerging from the ground as a flowing stream), seeps, spring pools, outflows, and diverse lotic waters commonly described as cienegas at an elevation around 2,438 m (8,000 ft). Firm substrate such as cobble, gravel, woody debris, and aquatic vegetation are essential for egg-laying and grazing. Aquatic vegetation includes watercress (*Nasturtium* sp.), *Ranunculus*, and algae.

RANGE: Locally endemic to the Three Forks and Boneyard spring complexes in the North Fork East Fork Black River Watershed in Apache County of east-central Arizona. Three Forks Springs is confined to an area of approximately 0.1 km² (0.04 miles²). The extirpation of this springsnail from at least two concrete boxed spring heads at Three Forks Springs has been confirmed.

REASONS FOR DECLINE/VULNERABILITY: The degradation of spring run banks due to excessive ungulate trampling and crayfish burrowing contributes to accelerated sedimentation and high turbidity resulting in changes to microhabitat conditions such as shifts in substrate composition. Habitat invasion by non-native crayfish contributes to unnatural predatory pressure. Unauthorized bait bucket releases and dish washing by recreationists potentially contributes to introduction of non-native organisms and/or pollutants.

LAND MANAGEMENT/OWNERSHIP: Apache-Sitgreaves National Forests

NOTES: A permit from the Forest is now required for access to the Three Forks Springs area. The Forest has expressed a desire to develop a conservation agreement.

Listed as a Species of Special Concern by the State of Arizona.